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ABSTRACT

In September 1993 the Ontario Ministry of Education (Canada) changed the curriculum of grade 9 students, which resulted in the destreaming and decrediting of grade 9 students during their first year of high school. This report presents findings of a study that examined the impact of the changes on grade 9 students in the Toronto Board. The study used a "benchmarks" process: It compared the achievement and outcomes of two grade 9 cohorts (1991-92 and 1992-93) prior to the curriculum changes with the outcomes of the next cohort of grade 9 students (1993-94). The study also tracked students in each grade 9 cohort for 2 years (that is, for their 9th- and 10th-grade years). Findings are presented for the first destreamed/decredited cohort of students, who finished grade 10 at the end of summer 1995. The results of the curriculum changes were moderately positive. The numbers of dropouts and out-of-Board transfers declined slightly compared to the other cohorts; grade 9 absenteeism fell slightly; the dropout rate fell across all absenteeism categories except for those viewed as "highly at risk"; and, compared to the two previous cohorts, the destreamed students had higher credit accumulations in grade 9 and similar credit accumulations in grade 10. Six tables are included. (LMI)

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TRACKING OF GRADE 9 AND 10 STUDENTS IN THE TORONTO BOARD SEPTEMBER 1991- SEPTEMBER 1995

March 1996

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EXECUTIVE SUMMARY

In September 1993 the Ministry of Education introduced changes to the curriculum of Grade 9 students resulting in the destreaming and decrediting of Grade 9 students during their first year of high school. Research and Assessment was requested to study the impact of these changes on Grade 9 students in the Toronto Board. It was decided to use a 'benchmarks' process: to establish previous records of Grade 9 achievement and outcomes prior to destreaming and decrediting, and to compare the characteristics of the 'new' 1993-94 Grade 9 students Also, it was decided to track students in each Grade 9 cohort for two years (i.e. for their Grade 9 year and their Grade 10 year). As a result, three cohorts were examined:

Year 1 Cohort: these were students who started their Grade 9 in September of 1991. They were studied for two years: for 1991-92 (Grade 9) and 1992-93 (Grade 10). Outcomes were examined as of the end of their second year (September 1993).

Year 2 Cohort: these were students who started their Grade 9 in September of 1992. They were studied for two years: for 1992-93 (Grade 9) and 1993-94 (Grade 10). Outcomes were examined as of the end of their second year (September 1994).

Year 3 Cohort (the Destreamed Cohort) : these were students who started their Grade 9 in September of 1993. They were the first destreamed/decredited Grade 9 cohort in the Toronto Board.[1] They were studied for two years: for 1993-94 (Grade 9) and 1994-95 (Grade 10). Outcomes were examined as of the end of their second year (September 1995).

Results

The first destreamed/decredited cohort of students finished their Grade 10 at the end of the summer of 1995, and we can get a 'progress report' of how they are doing. So far, results are *moderately positive*, compared to previous cohorts of students:

- Dropout and transfer out of the Board have gone down somewhat (and hence more students are staying in the Board) by the end of Grade 10, compared to other cohorts.

- Grade 9 absenteeism has fallen slightly; there are proportionally fewer students who are considered "at risk" due to high or very high absenteeism.

- When dropout and absenteeism figures are combined, it appears that the dropout rate has fallen across all absenteeism categories except the 'highly at risk' (as of the end of Grade 10). Dropout rates of those with very high absenteeism has not changed-- but there are proportionally fewer of those students.

- The destreamed students had higher credit accumulation in Grade 9; their credit accumulation in Grade 10 did not slip behind, as some had worried about, but remained the same compared to previous cohorts. This gives the Destreamed cohort an average of 1 credit more at the end of Grade 10, compared to previous cohorts.

If this momentum is maintained, it is probable that the total cohort graduation rate will go up, and the dropout rate will go down, compared to the other cohorts. However, we will not know the full picture for the next few years; therefore, Research and Assessment will be continuing to track these students.

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[1] There had been previous destreamed Grade 9 students in Rosedale Heights Secondary School, which opened in 1991. However, these students still received marks and credits for their individual Grade 9 subjects.

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INTRODUCTION

In the Toronto Board as in nearly all schools in Ontario, Grade 9 is the first year of secondary school. In September 1993, a major Ministry of Education initiative greatly changed the Grade 9 experience for most students. First, Grade 9 became a 'destreamed' year, in that Grade 9 students remained in one academic stream or level; the direction of students in Advanced, General and Basic levels of study was shifted to Grade 10. Secondly, Grade 9 students were no longer given credits only for completed courses (for example, one credit for Grade 9 math, one credit for Grade 9 English, and so on); rather, successful students were thought to have completed the entire Grade 9 experience and given a undifferentiated total of 8 credits.

In doing this, the Ministry of Education and Training was entering uncharted territory. While there was an extensive literature on the merits and disadvantages of streaming students into academic tracks, there was little or nothing in the public domain on the effectiveness of destreaming one year only; and there was nothing available on the effectiveness of decrediting a first year of secondary school.

Research and Assessment was requested to study the impact of these changes on Grade 9 students in the Toronto Board. Certain methodological challenges presented themselves. First, since all new Grade 9 students were affected by the change, one could not compare an 'experimental' group of destreamed decredited Grade 9 students with a 'control' group of streamed credited Grade 9 students. Secondly, because of decrediting, one could not measure marks or credits (the normal measure of student achievement) at the end of Grade 9.

As a result, it was decided to use a 'benchmarks' process: to establish previous records of Grade 9 achievement and outcomes prior to destreaming and decrediting, and to compare the characteristics of the 'new' 1993-94 Grade 9 students. Also, it was decided to track students in each Grade 9 cohort for two years (i.e. for their Grade 9 year and their Grade 10 year). To be consistent, each cohort was selected in the same way and studied in the same way. Three cohorts were examined:

Year 1 Cohort: these were students who started their Grade 9 in September of 1991. They were studied for two years: for 1991-92 (Grade 9) and 1992-93 (Grade 10). Outcomes were examined as of the end of their second year (September 1993).

Year 2 Cohort: these were students who started their Grade 9 in September of 1992. They were studied for two years: for 1992-93 (Grade 9) and 1993-94 (Grade 10). Outcomes were examined as of the end of their second year (September 1994).

Year 3 Cohort (the Destreamed Cohort) : these were students who started their Grade 9 in September of 1993. They were the first destreamed/decredited Grade 9 cohort in the Toronto Board.[1] They were studied for two years: for 1993-94 (Grade 9) and 1994-95 (Grade 10). Outcomes were examined as of the end of their second year (September 1995).

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[1] There had been previous destreamed Grade 9 students in Rosedale Heights Secondary School, which opened in 1991. However, these students still received marks and credits for their individual Grade 9 subjects.

For each cohort, Grade 9 student was defined as a student between the ages of 13 and 15, who had no prior secondary school history (either in the Toronto Board or elsewhere) according to Computer Information Services records.[2]

Criteria

For each cohort (Year 1, Year 2, and Year 3) the following criteria were examined:

Grade 10 outcomes: the transfer, dropout, or continuation in the Toronto Board by the end of Grade 10.

Internal (Within-Board) Mobility of Students: the proportion of students who by June of Grade 10, had attended a different Toronto Board secondary school than the school they first started in September of Grade 9.

Academic Level: the academic stream or level of the student (Advanced, General, Basic, and Destreamed) as determined by completed secondary school credits.

Grade 9 Absenteeism: the absentee rate of students (number of days absent from school, out of the number of days registered at the school) during Grade 9.

Average Grade 10 Credit Accumulation: the average credit accumulation of students during Grade 10. This includes the following demographic variables: parental status (living with both or one parent); language spoken at home (for English, Chinese, Spanish, Vietnamese, Portuguese, and Greek), gender, and academic level.

Average Credit Accumulation for Grades 9 and 10 combined: that is, the average of the total for Grade 9 and Grade 10 credits. This includes the following demographic variables: parental status (living with both or one parent); language spoken at home (for English, Chinese, Spanish, Vietnamese, Portuguese, and Greek), gender, and academic level.

[2] Students were selected using a procedure involving about 13 separate computer programs for each cohort. Details are available upon request from Research and Assessment.

FINDINGS

1. Outcomes for Cohorts: Transfer, Dropout, or Continuation by the end of Grade 10

Outcomes for students (transfer, dropout, or continuation in the Board) were calculated for end of Grade 10 (traditionally, annual outcomes use the end of September as their cutoff date, because it is only at the end of September that it becomes clear who has dropped out, transferred or remained in the Board. For the destreamed Year 3, the Grade 10 cutoff was the end of September 1995). Compared to Years 1 and 2, somewhat fewer students in the destreamed Year 3 had transferred out of the Toronto Board, or dropped out, by the end of Grade 10; a higher proportion of Year 3 students were continuing their secondary school education in the Toronto Board into Grade 11.

Table 1:
Outcomes for Cohorts— Transfer, Dropout, or Continuation by the end of Grade 10

OUTCOMES	Year 1: 1991-92	Year 2: 1992-93	Year 3: 1993-94
Continue in the Board	83.4	84.9	88.5
Transfer outside the Board	11.0	9.1	7.0
Drop out	5.6	6.0	4.5

2. Internal (Within-Board) Mobility of Students by end of Grade 10

Internal mobility has been defined as the proportion of students who, by the end of June of Grade 10, had attended a different Toronto secondary school than they school they started with in September of Grade 9 (for example, if a student attended Monarch Park at the start of Grade 9 but had transferred to Eastern Technical by June of Grade 10). The internal mobility of students in Year 3 was greater than in Year, which was in turn greater than in Year 1. There are several possible explanations for this. First, the successive increases suggest a trend in increased internal mobility. Secondly, increased internal mobility in Year 3 may relate to decreased dropout and transfer out of the Board: rather than leaving the Board, some students may change schools within the Board. Third, the increased mobility may be an artifact of administrative changes, such as the closing of Brockton Secondary School. Internal mobility is obviously a factor that deserves further study. Previous research (see Brown, 1995) has suggested that internal mobility is often (although not always) a factor associated with 'at risk' status.

Table 2: Internal Mobility of Students (by July of Grade 10)

	Year 1: 1991-92	Year 2: 1992-93	Year 3: 1993-94
Mobility rate (Grades 9-10)	8.1	8.6	9.5

3. Academic Level of Students by end of Grade 10

Each student's academic level was calculated according to completed secondary credits at the end of Grade 10.[3] For example, if the majority of the students' successfully completed credits were in the Advanced level, the student would be classified as an Advanced level student. A higher somewhat higher proportion of students were Advanced level in Year 3 compared to Years 1 and 2 (75% of Year 3 students compared to 71% of Year 2 students and 73% of Year 1 students) while the proportion of General level students declined and Basic level students virtually disappeared.

It should be noted that between September 1991 (the start of Grade 9 of Year 1) and September 1995 (the end of Grade 10 for the destreamed Year 3), the remaining Basic-level school was closed, and Basic level courses were discontinued at other schools. As well, a number of Technical schools substantially increased their offerings of Advanced level courses. Therefore, the changes in academic level may represent a response to course changes at different schools.

Table 3 : Academic Level of Students by end of Grade 10 (using completed credits)

Academic Level	Year 1: 1991-92	Year 2: 1992-93	Year 3: 1993-94
Advanced	72.9	71.3	75.1
General	16.2	13.5	13.3
Basic	2.7	2.9	1.0
Destreamed	1.7	2.4	1.6
No TBE credits*	6.5	9.9	8.9

*Excluding Equivalency credits.

[3] To be consistent, completed Grade 10 credits were used as the basis for calculating academic level for all three years.

4. Absenteeism During Grade 9

Since 1990, data on student attendance and absenteeism have been provided by administrative staff at Toronto secondary schools. Recent research (see Brown, 1995b; Brown, 1995c) has indicated the importance of attendance and absenteeism on credit accumulation. This is in the tradition of several studies that have shown absenteeism as an important factor associated with the dropping out process (Deschamps, 1992).

As can be seen in Table 4, average absenteeism during Grade 9 seems to vary between 7 and 8%.[4] It appears that absenteeism in Year 3 was somewhat lower than in Years 1 and 2, although the difference is comparatively small (an absenteeism rate of 7.31% in Year 3, compared to 7.81% in Year 2 and 7.56% in Year 1).

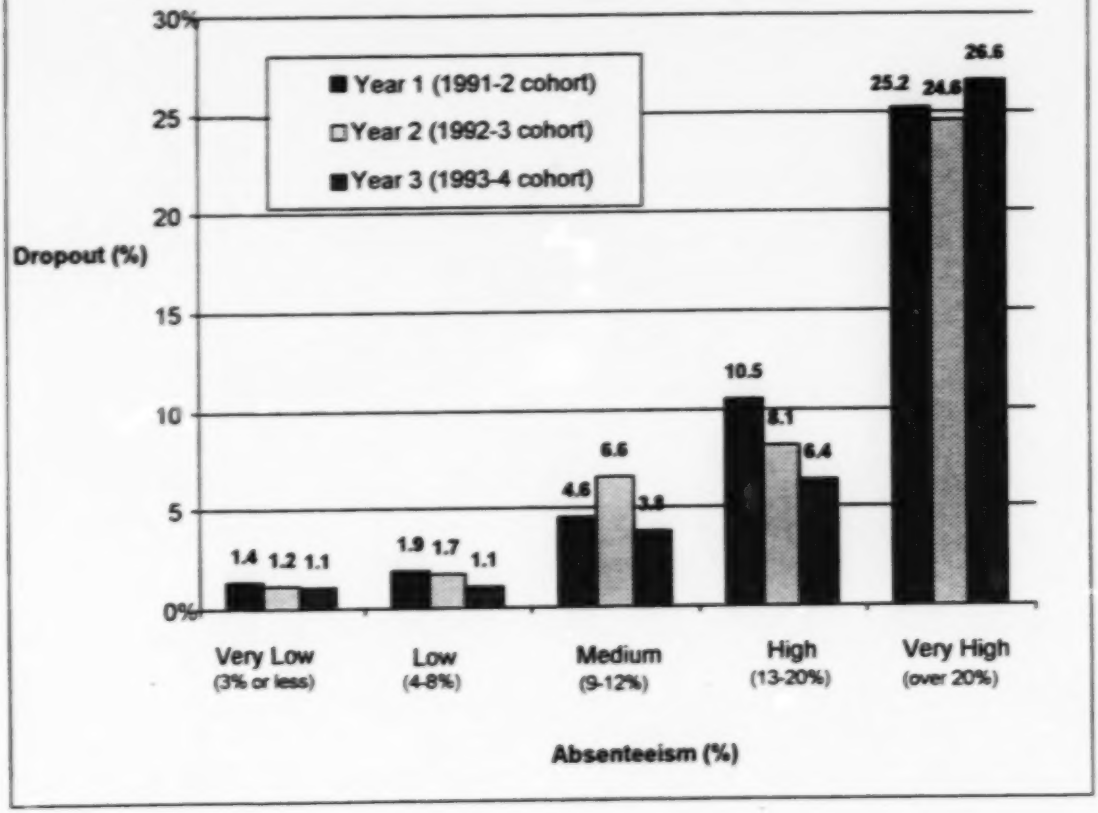
Table 4: Absenteeism during Grade 9

	Year 1: 1991-2	**Year 2: 1992-3**	**Year 3: 1993-4**
	%	**%**	**%**
Very low absenteeism (3% or less)	44.2	41.8	45.3
Low absenteeism (4-8%)	29.1	32.0	29.4
Medium absenteeism (9-12%)	10.2	9.8	10.3
High absenteeism (13- 20%)	8.7	8.0	7.7
Very high absenteeism (over 20%)	7.9	8.5	7.3
TOTAL	100.0	100.0	100.0
Average absenteeism	**7.56 (N= 3834)**	**7.81 (N = 3879)**	**7.32 (N = 3822)**

However, an interesting (and more positive) picture emerges in Figure 1, when the absenteeism in Grade 9 and dropout by the end of Grade 10 are compared. It appears that the dropout rate in Year 3 had fallen across all absenteeism categories except those with very high absenteeism (over 20%)-- and there were proportionally fewer of those students in Year 3.

[4] For each year, absenteeism was calculated excluding those who dropped out in Grade 9 (up to September, the beginning of the next school year) and those who transferred out of the Board prior to June of Grade 9.

Figure 1: All Grade 9 Cohorts
Grade 9 Absenteeism and Grade 10 Dropout



5. Average Credit Accumulation during Grade 10

Since Grade 10 was the first year that Year 3 students had completed streamed and credited courses, it is the most useful point to examine all three cohorts for similarities and differences.

There is very little difference between overall credit accumulation of all three cohorts during their Grade 10 year. The Year 1 (1991-92) cohort accumulated an average of 6.51 credits during their Grade 10; the Year 2 (1992-93) cohort accumulated an average of 6.32 credits during their Grade 10; and the destreamed Year 3 (1993-94) cohort accumulated an average of 6.40 credits during their Grade 10.

Table 5: Average Credit Accumulation during Grade 10

	Year 1: 1991-92	Year 2: 1992-93	Year 3: 1993-94
Grade 10 Credits			
TOTAL	6.51	6.32	6.40
Parental status			
Lives with both parents	6.94	6.75	6.80
Lives with one parent	5.70	5.51	5.53
Language first spoken at home			
English only	6.30	6.16	6.18
Chinese	7.52	7.22	7.35
Greek	7.06	6.72	6.32
Portuguese	5.92	5.92	5.66
Spanish	5.68	5.34	5.86
Vietnamese	6.53	6.36	6.41
Gender			
Females	6.75	6.58	6.75
Males	6.30	6.08	6.09
Academic Level			
Advanced	7.32	7.40	7.35
General	5.71	5.54	5.33
Basic	5.47	5.42	6.08
Destreamed	5.87	5.73	5.44

Note: Demographic characteristics are taken from student records. 'Language first spoken at home' is given for the most frequently-spoken languages of the Grade 9 cohorts. 'Academic level' is calculated according to completed secondary credits at the end of Grade 10 (see Section 3).

6. TOTAL Credit Accumulation-- Grade 9 and Grade 10 Combined

When the total of Grade 9 and Grade 10 credit accumulation is examined, there are some differences. The destreamed Year 3 students had accumulated, on average, 14.11 credits by the end of Grade 10, compared to 13.16 credits of Year 2 students and 13.38 credits of Year 1 students. Since there was little difference in credit accumulation in Grade 10 itself, it appears that the destreamed decredited Grade 9 was responsible for adding, on average, a credit to students' total credit accumulation by the end of Grade 10.

Those groups with below-average total credit accumulation in the Year 1 cohort still had below-average credit accumulation in Year 3: those living with one parent, Spanish and Portuguese, males, and those in the General, Basic and Destreamed academic levels. However, there is another way of looking at this: these under-achieving groups had increased their total Grade 9-10 credit accumulation more than other groups. For example, the average total Grade 9-10 credits of students living with both parents was about half a credit higher in Year 3 than Year 1; however, the average total Grade 9-10 credits of those living with one parent was one credit higher in Year 3 than Year 1. Likewise, while the average total Grade 9-10 credits of Chinese speaking students increased by a third of a credit between Year 1 and Year 3 (15.06 to 15.39) the average total Grade 9-10 credits of Portuguese-speaking students increased by three quarters of a credit (12.24 to 13.00). This is quite positive; one caution is that over time, the advantage given by this additional Grade 9 credit may be dissipated over Grades 11 to OAC.

Still, the addition of an average of one additional credit may make a difference for 'at risk' students when they reach their senior years of high school: research has indicated that many senior students drop out when the probability of graduation appears remote, due to low credits; the difference of one credit may influence some students to stay in school when they would otherwise drop out. Although there is much room for optimism, this is a case where the final picture will only be known two or three years from now.

Table 6: TOTAL Credit Accumulation by end of Grade 10
(i.e. Grades 9 and 10 credits combined)

	Year 1: 1991-92	Year 2: 1992-93	Year 3: 1993-94
Grade 9-10 Credits			
TOTAL	13.38	13.16	14.11
Parental status			
Lives with both parents	14.10	13.91	14.66
Lives with one parent	11.96	11.69	12.97
Language first spoken at home			
English only	13.07	12.92	13.86
Chinese	15.06	14.59	15.39
Greek	14.24	14.10	14.45
Portuguese	12.24	12.14	13.00
Spanish	12.15	11.25	13.13
Vietnamese	13.40	13.08	14.26
Gender			
Females	13.80	13.63	14.61
Males	13.02	12.74	13.68
Academic Level			
Advanced	14.82	14.99	15.39
General	11.72	11.30	12.83
Basic	10.89	11.34	13.89
Destreamed	12.16	11.27	13.02

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